

V. Concise Summary of the Invention

The invention comprises an apparatus for integration of a plurality of television signal sources into a single system. Internal provisions include a standard broadcast-frequency tuner as well as a cable tuner. The cable tuner may optionally include provisions for a descrambler module for premium or pay-per-view services, which may be implemented either as an internal circuit board, an internal plug-in module, or an external plug-in unit (Specification, page 2, lines 2-10). A third input is provided as a direct-broadcast-satellite tuner, which itself may be implemented as an internal circuit board or as an internal or external plug-in unit (Specification, page 2, lines 10-13). As is the case for the cable tuner, provisions are included for a separate descrambler unit implemented as an internal circuit board or as an internal or external plug-in unit (Specification, page 2, lines 13-16). As a further option, additional inputs may be provided for other uses, such as VCR playback signals. Outputs are provided both for baseband audio and video, and also through an RF modulator (Specification, page 2, lines 16-19).

A system controller, which accepts control signals from a standard infrared-type hand-held remote-controller, handles such tasks as input selection and channel switching, and allows the user to reassign channel designations at will, even including input switching as part of the channel selection (Specification, page 2, lines 20-25). The controller also integrates signals for an optional telephone interface, for pay-per-view billing or other uses (Specification, page 2, lines 25-27). When required, the controller is further capable of enabling descrambling circuitry as appropriate for each signal source. In like manner, specialized modules (as, for example, MPEG decoders and the like) may be enabled or have their operating parameters configured so as to process digitally encoded signals (Specification, page 2, line 27 to page 3, line 3). In a preferred embodiment, the unit may be provided with additional tuner provisions associated with any of the various inputs, for receiving signals in which a primary signal is on one channel, and a secondary signal is on a different channel, as, for example, in the case of a stereoscopic broadcast system in which one channel carried the "left eye" signal, and a second channel carried the "right-eye" signal (Specification, page 3, lines 3-10).

VI. Concise Statement of Issues Presented For Review

1. Are claims 18-40 properly rejected under 35 U.S.C. §112, second paragraph?

VII. Grouping of Claims for Each Ground of Rejection Which Appellant Contends

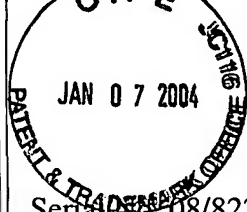
All pending claims 18-25 stand or fall with claim 18.

VIII. Argument

The claims of this application stand rejected under 35 U.S.C. §112, first paragraph, on the grounds that, "there is no disclosure that explicitly teaches that . . . additional information may be used to switch the system, for instance from the cable source to the satellite source or broadcast source, or vice versa." Appellants respectfully disagree. First, an important point of novelty of this invention is the ability to integrate and select among channels derived through various transmission media into a cohesive viewing environment. Reference is made to the Summary of the Invention, where it is disclosed that "a system controller, which accepts control signals from a standard infrared-type hand-held remote-controller, handles such tasks as input selection and channel switching, and allows the user to reassign channel designations at will, *even including input switching as part of the channel selection.*" "In a preferred embodiment, the unit may be provided with additional tuner provisions associated with any of the various inputs ..." (page 3, lines 3-5). "All of these input sources are demodulated and provided to the audio/video switching matrix as baseband audio and video signals, enabling signal routing within the audio/video switching matrix to be implemented a baseband video 'bus.'" (Specification, page 4, lines 16-20.)

Thus, clearly to one of ordinary skill in the art, channels on primary vs. secondary transmission media may be selected at will, without regard to origin. This understanding is corroborated by the claims of this application *as originally filed* on June 8, 1995, a copy of which are attached hereto as Appendix B. Reference is made to original claim 1, which not only discloses the ability to switch between a broadcast-frequency and cable TV program in accordance with viewer preferences, but also the capability of selectively routing a program from any of the associated inputs. Based upon these teachings, the instant claims are certainly enabling to one of skill in the art.

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APPENDIX ACLAIMS ON APPEAL

18. A method of automatically changing to an alternate transmission medium at a TV viewer location, comprising the steps of:

entering, at the viewer location, information regarding a viewing preference;
transmitting a TV program from a source to a viewer location;
receiving the TV program at the viewer location over a first transmission medium; and
automatically switching the TV program to the alternate transmission medium based on the information previously entered by the viewer without requiring any additional viewer intervention at the time of the switching.

19. The method of claim 18, wherein the TV program is a cable TV program.

20. The method of claim 18, wherein the TV program is an audio/video program transmitted in digital form.

21. The method of claim 18, wherein the step of entering the information at the viewer location includes using a hand-held remote-control unit.

22. The method of claim 18, wherein the step of entering the information at the viewer location includes using an on-screen programming technique.

23. The method of claim 18, wherein the step of entering the information at the viewer location includes downloading the information from a computer.

24. The method of claim 18, wherein the pointer is transmitted continuously with the TV program.

25. The method of claim 18, wherein the pointer is transmitted at the initiation of the TV program.

26. A method of directing an automatic channel changing function at a viewer location to achieve a cohesive viewing environment, comprising the steps of:

providing a channel selector at a viewer location; and

transmitting, from a broadcaster to the viewing location, a TV program on a primary transmission medium, the program including additional information for directing the channel selector to automatically switch, at least temporarily, to one or more secondary transmission media.

27. The method of claim 26, wherein the additional information is derived from preference information entered at the viewer location.

28. The method of claim 26, wherein the preference information is entered using a hand-held remote-control unit.

29. The method of claim 26, wherein the preference information is entered using an on-screen programming technique.

30. The method of claim 26, wherein the TV program is a cable TV program.

31. The method of claim 26, wherein the TV program is an audio/video program transmitted in digital form.

32. The method of claim 26, wherein the additional information is transmitted continuously with the TV program.

33. The method of claim 26, wherein the additional information is transmitted at the initiation of the TV program.

34. A television viewing system, comprising:
a source of an audio/video TV program including a channel-change command; and
equipment at a TV viewing location remote from the source, including a channel selector and
circuitry operative to perform the following functions:
receive the TV program,
detect the channel-change command, and
automatically select a different transmission medium in response to the channel-change
command.

35. The system of claim 34, further including:
a device for inputting descriptive information by a viewer; and
wherein the multi-channel tuner is also changed to a different station as a function of the
descriptive information in response the channel-change command.

36. The system of claim 34, wherein:
the device is a hand-held remote-control unit; and
the descriptive information is entered using an on-screen programming technique.

37. The system of claim 34, wherein the TV program is a cable TV signal.

38. The system of claim 34, wherein the TV program is an audio/video program
transmitted in digital form.

39. The system of claim 34, wherein the descriptive information is transmitted
continuously with the TV program.

40. The system of claim 34, wherein the descriptive information is transmitted at the
initiation of the TV program.

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APPENDIX B

1. A system for integrating a plurality of television signal sources into a cohesive viewing environment, the system comprising:

a standard broadcast-frequency television input
5 and an associated multi-channel tuner operative to selectively tune a broadcast television program;

a cable television input and an associated multi-channel tuner operative to selectively tune a cable television program;

10 an output to deliver a video program to display device;

a user command input device;

means for storing information representative of channel designations; and

15 a system controller operative to perform the following functions in response to a user commands:

assign and re-assign user-defined channels designations to channels present on any of the associated inputs, and store the designations for future use, and

20 selectively route a television program from any of the associated inputs to the output for viewing on the display device, the switching of a particular input being a function of the user-defined channel designations.

2. The system of claim 1, the cable tuner
25 further including a descrambler module for premium services.

3. The system of claim 1, further including:
a direct-broadcast-satellite (DBS) television

input and an associated multi-channel tuner operative to selectively tune a DBS program, the controller being further operative to assign and store user-defined DBS channels designations and selectively route the DBS program
5 to the output for viewing on the display device in accordance with the channel designations.

4. The system of claim 1, further including a telephone interface to facilitate an automatic account transaction associated with a pay-per-view program.

10 5. The system of claim 1, further including:
an input to receive a previously locally stored video program, the controller being further operative to selectively route the program to the output for viewing on the display device.

15 6. The system of claim 1, the output including separate baseband audio and video outputs.

7. The system of claim 1, further including an input to receive a digital program in data compressed form and means for selectively digitally decompressing the
20 program prior to delivery to the display device.

8. The system of claim 1, wherein one or more additional channels carry supplemental program information, the system being further capable of automatically determining at least one of the additional channels and
25 tuning that channel so as to output the program along with

the supplemental information.

9. The system of claim 8, the additional channel carrying supplemental information to facilitate higher-resolution viewing of the program.

5 10. The system of claim 9, including supplemental information associated with one eye of the viewer to facilitate stereoscopic viewing.

11. The system of claim 8, the additional channel carrying supplemental audio information.

10 12. The system of claim 8, wherein the system is capable of automatically determining at least one of the additional channels by extracting a supplemental channel information from a program channel.

15 13. The system of claim 12, wherein the supplemental channel information is carried by the program channel on a repetitive basis in a non-viewable portion of program signal.

14. The system of claim 12, wherein the supplemental channel information is carried by the program
20 channel only at the start of a particular program.

15. The system of claim 12, wherein the supplemental channel information changes during the receipt

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of a particular program to which supplemental information may be associated.

16. The system of claim 8, wherein the system is capable of automatically determining at least one of the
5 additional channels by receiving a code containing additional channel information.

17. The system of claim 8, further including a plurality of outputs associated with a program and supplemental information, enabling a user to record a
10 program received from a program channel and one or more additional channels.